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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/264,756	03/09/1999	VENKATESH KRISHNAN	10981459-1	3679

22879 7590 05/28/2002

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EXAMINER

NGUYEN, DUSTIN

ART UNIT	PAPER NUMBER
2155	

DATE MAILED: 05/28/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	09/264,756	KRISHNAN ET AL.
	Examiner Dustin Nguyen	Art Unit 2156

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 09 March 1999.

2a) This action is FINAL. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-19 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1-19 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) The translation of the foreign language provisional application has been received.

15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) Notice of References Cited (PTO-892)

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____

4) Interview Summary (PTO-413) Paper No(s) _____

5) Notice of Informal Patent Application (PTO-152)

6) Other: _____

DETAILED ACTION

1. Claims 1 – 19 are presented for examination.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1 – 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Herriot (USPN 6134583) in view of Ramakrishnan et al. (USPN 5636355).

4. As per claim 1, Herriot teaches

class structure (i.e. cache file) for holding one or more of a set of predefined classes (i.e. table) (e.g. col 9, line 29-34) for use by an application program that executes under the virtual machine (e.g. col 11, line 46-48)

class loader that obtains one or more of the predefined classes from a network server (e.g. col 10, line 22-28) and that stores the predefined classes into the class structure (e.g. col 11, 19-22).

Herriot does not disclose the memory manager that purges selected ones of the predefined classes from the class structure so as to optimize the use of memory resources consumed by the predefined classes in the class structure.

Ramakrishnan et al. discloses purging selected ones of the predefined classes (i.e. data) from the class structure (e.g. col 4, line 24-29) so as to optimize the use of memory resources consumed by the predefined classes in the class structure (e.g. col 10, line 47-49).

At the time the invention was made, it would have been obvious to a person skill in the art to combine Herriot and Ramakrishnan et al., because if the class structure is full, in order to store addition class, old class must be replaced (i.e. purge) from memory resource, thereby making efficient use of a limited amount of memory.

5. As per claim 2, Herriot teaches the network server is an http server (e.g. col 9, line 7-8) that exports a set of class files containing one or more of the predefined classes (e.g. col 9, line 26-29)

6. As per claim 3, Herriot teaches the class loader includes an HTTP client (e.g. col 9, line 6) that generates an HTTP GET command that specifies a particular one of the class files and provides the HTTP GET command to the HTTP server in response to a request to load a particular one of the predefined classes (e.g. col 11, line 15-17).

7. As per claim 4, Herriot teaches the HTTP GET command (i.e. HTML tag) specifies a URL for the particular one of the class files (e.g. col 10, line 22-28).

8. As per claim 5, Herriot teaches class definition statement (i.e. identifier) that specifies one or more URLs for the class files (e.g. col 2, line 20-22).

9. As per claim 6, Herriot does not disclose the memory manager purges a least recently used one of the predefined classes from the class structure if the least recently used class is not in use.

Ramakrishnan discloses the above limitation (e.g. col 10, line 28-33).

At the time the invention was made, it would have been obvious to a person skill in the art to combine Herriot and Ramakrishnan et al., because if the class structure is full, in order to store addition class, old class must be replaced (i.e. purge) from memory resource, thereby making efficient use of a limited amount of memory.

10. As per claim 7, Herriot does not disclose the memory manager purges a next least recently used one of the predefined classes if the least recently used class is in use.

Ramakrishnan discloses the above limitation (e.g. col 10, line 33-54).

At the time the invention was made, it would have been obvious to a person skill in the art to combine Herriot and Ramakrishnan et al., because if the class structure is full, in order to store addition class, old class must be replaced (i.e. purge) from memory resource, thereby making efficient use of a limited amount of memory.

11. As per claim 8, Herriot does not disclose the memory manager purges a set of objects (i.e. blocks) associated with the least recently used or the next recently used one of the predefined classes purged from the class structure.

Ramakrishnan et al. teaches the above limitation (e.g. col 10, line 52-54).

At the time the invention was made, it would have been obvious to a person skill in the art to combine Herriot and Ramakrishnan et al., because if the class structure is full, in order to store addition class, old class must be replaced (i.e. purge) from memory resource, thereby making efficient use of a limited amount of memory.

12. As per claim 9, Herriot does not disclose the memory manager purges the least recently used or the next recently used one of the predefined classes at periodic times.

Ramakrishnan et al. discloses the above limitation (e.g. col 5, line 30-32).

At the time the invention was made, it would have been obvious to a person skill in the art to combine Herriot and Ramakrishnan et al., because if the class structure is full, in order to store addition class, old class must be replaced (i.e. purge) from memory resource, thereby making efficient use of a limited amount of memory.

13. As per claims 10 and 11, Herriot does not disclose purging the least recently used or the next recently used one of the predefined classes if available memory resources fall below a predefined threshold level and system becomes idle.

Ramakrishnan discloses the above limitations (e.g. col 5, line 30-49).

At the time the invention was made, it would have been obvious to a person skill in the art to combine Herriot and Ramakrishnan et al., because if the class structure is full, in order to store addition class, old class must be replaced (i.e. purge) from memory resource, thereby making efficient use of a limited amount of memory.

14. As per claims 12 and 13, they are rejected as similar reasons as stated above. Furthermore, Herriot shows the use of elements and functions of the above being performed as a method (e.g. claim 1, and 2).

15. As per claims 14 and 15, they are rejected as similar reasons as stated above.

16. As per claim 16, it is rejected as similar reasons as stated above. Furthermore, Herriot shows the use of elements and functions of the above being performed as an apparatus (e.g. claim 15).

17. As per claims 17, 18 and 19, they are rejected as similar reasons as stated above.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dustin Nguyen whose telephone number is (703) 305-5321. The examiner can normally be reached on Monday – Friday (8:00 – 5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Alvin Oberley can be reached on (703) 305-9716.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Dustin Nguyen

DN

05/01/02



JOHN A. FOLLANSBEE
PRIMARY EXAMINER